

## **AMENDMENTS TO THE CLAIMS**

This listing of claims replaces all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently Amended) In a computing sync community, a system for synchronizing multiple replicas in the sync community, the system comprising:

a computer processor executing a sync runtime module that provides services to one or more sync adapters, wherein the services provided by the sync runtime module to each of the one or more sync adapters include a change enumeration service that compares a first knowledge of a first replica with a second knowledge of a second replica to enumerate changes that are described by the second knowledge and absent from the first knowledge, ~~wherein the knowledge of a replica comprises information describing a set of changes to the replica that the given replica is aware of and is independent from other replicas;~~

a first data store containing a first replica for synchronization with one or more additional data stores, wherein the first data store further contains a first knowledge of the first replica, the first knowledge comprising information describing a set of changes to the first replica and the first knowledge being independent from changes to other replicas;

one or more sync adaptors, each of the one or more synch adaptors being configured to synchronize the first replica of the first data store with a second replica of a particular data store;

a particular data store containing the second replica to be synchronized with the first replica, wherein the particular data store further contains a second knowledge of the second replica, the second knowledge comprising information describing a set of changes to the second replica and the second knowledge being independent from changes to other replicas; and

a sync controller that instantiates a particular sync adapter such that the particular sync adapter utilizes the services provided by the sync runtime module to synchronize the first replica in the sync community with the second replica utilizing the first knowledge and the second knowledge.

2. (Previously Presented) The system as defined in claim 1, wherein the services provided by the sync runtime module are accessed by the one or more sync adapters using an applications programming interface.

3. (Cancelled).

4. (Previously Presented) The system as defined in claim 1, wherein the services further comprises a conflict detection service that uses the first knowledge of the first replica and the second knowledge of the second replica to detect conflicts.

5. (Previously Presented) The system as defined in claim 4, wherein the conflict detection service detects a conflict when a change enumerated by the first replica is not in the second knowledge of the second replica and a change enumerated by the second replica is not in the first knowledge of the first replica.

6. (Previously Presented) The system as defined in claim 4, wherein the conflict detection service further comprises a conflict resolution module.

7. (Previously Presented) The system as defined in claim 6, wherein the conflict resolution module can implement a conflict policy identified in a profile or included in a pluggable conflict resolution module.

8. (Previously Presented) The system as defined in claim 1, further comprising a profile that includes one or more parameters, wherein the sync controller configures the particular sync adapter using the one or more parameters in the profile.

9. (Previously Presented) The system as defined in claim 8, wherein the profile identifies one or more of:

- a first source folder of the first replica;
- a first destination folder of the first replica;
- a second source folder of the second replica;
- a second destination folder of the second replica;
- a first filter to filter changes that are enumerated at the first replica;
- a second filter to filter changes retrieved from the second replica;
- a transformation for converting an item from the second replica to a format of the first replica; and
- a conflict resolution policy.

10. (Previously Presented) The system as defined in claim 1, wherein the services further comprises one or more of:

- an item ID matching service, wherein second item IDs of the second replica are provided by the particular adapter during a receive sync and first item IDs of the first replica are provided by the sync runtime module during a send sync;
- a sync interruptability service that includes exceptions in a remote knowledge;
- and
- a service that prevents changes from reflecting to and from the first replica.

11. (Previously Presented) The system as defined in claim 1, wherein the services further comprises a sync metadata management service that stores a remote knowledge for the particular adapter.

12. (Previously Presented) The system as defined in claim 11, wherein the sync metadata management service stores a local knowledge used by the particular adapter.

13. (Currently Amended) A method for synchronizing a replica with one or more back end replicas, the method comprising:

initiating a particular adapter using one or more parameters included in a sync profile, wherein the particular adapter uses the one or more parameters, a first knowledge related to a first replica, and a second knowledge related to a second replica to synchronize the [[a]] first replica with the [[a]] second replica;

receiving a request from the particular adapter to enumerate changes on the first replica by comparing [[a]] the first knowledge of the first replica with the [[a]] second knowledge of the second replica to identify changes that are described by the first knowledge and absent from the second knowledge, wherein the knowledge of a replica comprises information describing a set of changes to a replica that the given replica is aware of and independent from other replicas;

enumerating changes on the first replica by comparing the first knowledge of the first replica with the second knowledge of the second replica and identifying changes described in the first knowledge and absent from the second knowledge;

detecting conflicts by determining whether a change enumerated by the first replica is included in the second knowledge of the second replica and whether the change at the second replica is included in the first knowledge of the first replica; and

sending changes enumerated at the first replica to the second replica.

14. (Previously Presented) The method as defined in claim 13, wherein initiating the particular adapter using the one or more parameters included in the sync profile further comprises defining the sync profile.

15. (Previously Presented) The method as defined in claim 14, wherein defining the sync profile further comprises one or more of:

- specifying a sync direction;
- identifying the particular adapter;
- identifying a first source folder and a first destination folder on the first replica;
- identifying a second source folder and a second destination folder on the second replica; and
- including a conflict policy.

16. (Previously Presented) The method as defined in claim 13, wherein receiving the request from the particular adapter to enumerate changes on the first replica by comparing the knowledge of the first replica with the knowledge of the second replica further comprises receiving the request for a service provided by a sync runtime.

17. (Previously Presented) The method as defined in claim 16, wherein receiving the request for the service provided by the sync runtime further comprises providing the requested service.

18. (Previously Presented) The method as defined in claim 17, wherein providing the requested service further comprises managing sync metadata by performing one or more of:

- storing a state of the synchronization for the particular adapter;
- storing local knowledge for the second replica; and
- storing a remote knowledge of the second replica.

19. (Previously Presented) The method as defined in claim 17, wherein providing the requested service further comprises mapping a first item ID of the first replica with a second item ID of the second replica, wherein the particular adapter provides the second item ID of the second replica in a receive sync and wherein the sync runtime provides the second item ID of the second replica during a send sync.

20. (Previously Presented) The method as defined in claim 17, wherein providing the requested service further comprises including exceptions in a remote knowledge such that items corresponding to the exceptions are not synchronized in future synchronizations.

21. (Previously Presented) The method as defined in claim 13, further comprising preventing a change from being reflected between the first replica and the second replica using the first knowledge of the first replica and the second knowledge of the second replica.

22. (Previously Presented) The method as defined in claim 13, further comprising:

receiving changes enumerated by the second replica;  
applying changes enumerated by the second replica at the first replica; and  
updating the knowledge of the first replica.

23. (Previously Presented) A computer program product for implementing a method for synchronizing a replica with one or more back end replicas, the computer program product comprising:

initiating a particular adapter using one or more parameters included in a sync profile, wherein the particular adapter uses the one or more parameters, a first knowledge related to a first replica, and a second knowledge related to a second replica to synchronize the first replica with the second replica;

receiving a request from the particular adapter to enumerate changes on the first replica by comparing the first knowledge of the first replica with the [[a]] second knowledge of the second replica to identify changes that are described by the first knowledge and absent from the second knowledge, wherein the knowledge of a replica comprises information describing a set of changes to a replica that the given replica is aware of and independent from other replicas;

enumerating changes on the first replica by comparing the first knowledge of the first replica with the second knowledge of the second replica and identifying changes described in the first knowledge and absent from the second knowledge;

enumerating changes on the second replica by comparing the first knowledge of the first replica with the second knowledge of the second replica and identifying changes described in the second knowledge and absent from the first knowledge;

sending changes enumerated on the first replica to the second replica;

receiving changes enumerated on the second replica;

applying changes enumerated by the second replica at the first replica; and

updating the knowledge of the first replica to include the applied changes.  
~~a computer-readable storage media storing computer-executable instructions for performing the method of claim 13.~~

24. (Previously Presented) The computer program product as defined in claim 23, wherein initiating the particular adapter using the one or more parameters included in the sync profile further comprises defining the sync profile.

25. (Previously Presented) The computer program product as defined in claim 24, wherein defining the sync profile further comprises one or more of:

- specifying a sync direction;
- identifying the particular adapter;
- identifying a first source folder and a first destination folder on the first replica;
- identifying a second source folder and a second destination folder on the second replica; and
- including a conflict policy.

26. (Previously Presented) The computer program product as defined in claim 23, wherein receiving the request from the particular adapter to enumerate changes on the first replica by comparing a first knowledge of the first replica with a second knowledge of the second replica further comprises receiving the request for a service provided by a sync runtime.

27. (Previously Presented) The computer program product as defined in claim 26, wherein receiving the request for the service provided by the sync runtime further comprises providing the requested service.

28. (Previously Presented) The computer program product as defined in claim 27, wherein providing the requested service further comprises managing sync metadata by performing one or more of:

- storing a state of the synchronization for the particular adapter;
- storing local knowledge for the second replica; and
- storing a remote knowledge of the second replica.

29. (Previously Presented) The computer program product as defined in claim 27, wherein providing the requested service further comprises mapping first item ID of the first replica with second item ID of the second replica, wherein the particular adapter provides the second item ID of the second replica in a receive sync and wherein the sync runtime provides the second item ID of the second replica during a send sync.



30. (Previously Presented) The computer program product as defined in claim 27, wherein providing the requested service further comprises including exceptions in a remote knowledge such that items corresponding to the exceptions are not synchronized in future synchronizations.

31. (Previously Presented) The computer program product as defined in claim 23, further comprising preventing a change from being reflected between the first replica and the second replica using the first knowledge of the first replica and the second knowledge of the second replica.

32. (Canceled)